Please save as pdf and email back to me as pdf attachment

Megan Lawrence < southcoastconsultingllc@gmail.com> Wed 11/16/2022 11:58 AM

To: info waywardrstudio.com <info@waywardrstudio.com>

On Wed, Nov 16, 2022 at 9:35 AM Eric Oberbeck < <a>Eric@cascadiageotechnical.com> wrote:

Megan, drainage systems like a dry well are designed to handle up to a certain capacity. Once that capacity is exceeded, such as during a flood. there will be no appreciable benefit. So your assumption that the proposed drywell will perform as designed during normal groundwater conditions and will not perform during a flood is accurate. I am assuming that once the dry well is installed, that drainage will discharge to the west of the house on Coan's property in a suitable infiltration system (or similar). So yes, you are correct that while operational, the dry well and discharge line will direct flow to the west away from the "natural drainage-ways" and Lively's property.

In the event of a 100-year flood, based on the Flood Certificate submitted with the application and the FEMA map for the area, everything at or below the BFE of 21 feet AMSL will flood. This includes Lively's home site and much of their surrounding property and Coan's home site and surrounding property. Both sites are in the Johnson Creek flood plain. Since Johnson Creek will be the assumed primary source of the flood water and is south of Lively's house, it is my opinion that Coan's proposed house will not divert flood water to Lively's property in the event of a flood. This assumes that when developing Coan's property that FEMA guidelines for building in a floodplain are followed and that there is no grading of Coan's site which will cause redirection of flow. Further, in the event of a flood, the amount of flood water emanating from Johnson Creek will far exceed the groundwater that is in the dry well system on Coan's property. I hope this helps. Call me if you would like to discuss. Eric

On Tue, Nov 15, 2022 at 5:20 PM Megan Lawrence <<u>southcoastconsultingllc@gmail.com</u>> wrote: Hi Eric!

Thanks for your professionalism and responsiveness on this application, it's appreciated.

Put simply for us humanities people:

The proposed drywell will preform fine in normal conditions (ground water at or below 2'); under 20-year storm conditions, IF ground water is at surface level, it may not preform as designed. But it will slow the rate of runoff to the property's natural drainage-ways. Correct?

In your professional opinion, under 20-year storm conditions, will runoff collecting in the drywell get to the Lively property? If so, will it do any harm; if it will not go there, why not?

- M

From: Eric Oberbeck < <u>Eric@cascadiageotechnical.com</u>> Sent: Tuesday, November 15, 2022 4:30 PM **To:** info <u>waywardrstudio.com</u> <<u>info@waywardrstudio.com</u>> **Subject:** Coan Site, Beach Loop Road

Dave, per your request, I am offering this opinion as to the purpose and workings of the proposed dry well which will be installed on the Coan Property (T29S, R15W, Sec 01BB, Tax Lot 02000) on Beach Loop Road. As we have discussed, as part of our site evaluation of the Coan Property, which was summarized in our report to you dated February 9, 2022, we encountered shallow groundwater from 2.0 to 2.5 feet below ground surface in 2 of the three geotechnical borings. The borings were completed on December 4, 2021. The purpose of the proposed dry well is to prevent localized flooding of the Coan property by collecting near surface groundwater from a low point east of the residence and conveying it to a discharge area west of the residence. It is our opinion that if installed correctly and maintained, this drainage system will not impact or direct drainage to the neighbor's house to the south.

As stated in our report, we believe that the shallow groundwater elevation on the Coan property may rise during periods of sustained rainfall and that localized flooding of the site is possible. As discussed, the site is within the 100 base flood elevation. Please let me know if I can be of any further assistance. Eric

Eric Oberbeck, RG, CEG Cascadia Geoservices, Inc. PO Box 1026 Port Orford, Oregon 97465 Direct. <u>541-332-0433</u> Cell. <u>541-655-0021</u> e-mail: <u>eric@cascadiageoservices.com</u> web: www.cascadiageoservices.com

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